

CW

# 8

PCT09

RAW SEQUENCE LISTING  
PATENT APPLICATION: US/09/857,841

DATE: 10/30/2001  
TIME: 12:42:28

Input Set : A:\2577-109.app  
Output Set: N:\CRF3\10302001\I857841.raw

ENTERED

3 <110> APPLICANT: Fang, Rong-Xiang  
 4       Wu, Jun-Lin  
 5       Chen, Xiao-Ying  
 7 <120> TITLE OF INVENTION: ENHANCED PROTEIN PRODUCTION IN HIGHER PLANTS BY  
 8       N-TERMINAL FUSION OF A UBIQUITIN OR A CUCUMBER MOSAIC  
 9       VIRUS COAT PROTEIN PEPTIDE  
 11 <130> FILE REFERENCE: 2577-109  
 13 <140> CURRENT APPLICATION NUMBER: 09/857,841  
 C--> 14 <141> CURRENT FILING DATE: 1998-12-11  
 16 <150> PRIOR APPLICATION NUMBER: PCT/SG98/00103  
 17 <151> PRIOR FILING DATE: 1998-12-11  
 19 <160> NUMBER OF SEQ ID NOS: 14  
 21 <170> SOFTWARE: PatentIn Ver. 2.0  
 23 <210> SEQ ID NO: 1  
 24 <211> LENGTH: 235  
 25 <212> TYPE: DNA  
 26 <213> ORGANISM: Nicotiana tabacum  
 28 <220> FEATURE:  
 29 <221> NAME/KEY: CDS  
 30 <222> LOCATION: (3)..(230)  
 32 <220> FEATURE:  
 33 <223> OTHER INFORMATION: Modified from wild-type to insert an SphI site in  
 34       the region encompassing the initiation codon ATG  
 35       and to insert an NcoI site following the last  
 36       codon GGC.  
 38 <400> SEQUENCE: 1  
 39 gc atg cag atc ttc gta aag acc ctg acg ggg aag act att acc tta      47  
 40       Met Gln Ile Phe Val Lys Thr Leu Thr Gly Lys Thr Ile Thr Leu  
 41       1                   5                   10                   15  
 43 gag gta gag tca tcg gac acc att gac aat gtt aag gct aag att cag      95  
 44 Glu Val Glu Ser Ser Asp Thr Ile Asp Asn Val Lys Ala Lys Ile Gln  
 45       20                   25                   30  
 47 gac aag gaa ggc att cca ccg gac cag cag cgg ttg att ttc gca ggt      143  
 48 Asp Lys Glu Gly Ile Pro Pro Asp Gln Gln Arg Leu Ile Phe Ala Gly  
 49       35                   40                   45  
 51 aag cag ctt gag gat ggc cga aca cta gct gac tac aac atc cag aag      191  
 52 Lys Gln Leu Glu Asp Gly Arg Thr Leu Ala Asp Tyr Asn Ile Gln Lys  
 53       50                   55                   60  
 55 gag tcc act ctc cat ctc gtc tta aga ctc cgc ggt ggc catgg      235  
 56 Glu Ser Thr Leu His Leu Val Leu Arg Leu Arg Gly Gly  
 57       65                   70                   75  
 60 <210> SEQ ID NO: 2  
 61 <211> LENGTH: 76  
 62 <212> TYPE: PRT  
 63 <213> ORGANISM: Nicotiana tabacum  
 65 <400> SEQUENCE: 2  
 66 Met Gln Ile Phe Val Lys Thr Leu Thr Gly Lys Thr Ile Thr Leu Glu

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67   1           5           10           15
69 Val Glu Ser Ser Asp Thr Ile Asp Asn Val Lys Ala Lys Ile Gln Asp
70           20           25           30
72 Lys Glu Gly Ile Pro Pro Asp Gln Gln Arg Leu Ile Phe Ala Gly Lys
73           35           40           45
75 Gln Leu Glu Asp Gly Arg Thr Leu Ala Asp Tyr Asn Ile Gln Lys Glu
76           50           55           60
78 Ser Thr Leu His Leu Val Leu Arg Leu Arg Gly Gly
79   65           70           75
82 <210> SEQ ID NO: 3
83 <211> LENGTH: 53
84 <212> TYPE: DNA
85 <213> ORGANISM: cucumber mosaic virus
87 <220> FEATURE:
88 <221> NAME/KEY: CDS
89 <222> LOCATION: (6)..(47)
91 <400> SEQUENCE: 3
92 gatcc atg gac aaa tct gaa tca acc agt gct ggt cgt aac cgt cga      47
93     Met Asp Lys Ser Glu Ser Thr Ser Ala Gly Arg Asn Arg Arg
94       1           5           10
96 cgagct                               53
99 <210> SEQ ID NO: 4
100 <211> LENGTH: 14
101 <212> TYPE: PRT
102 <213> ORGANISM: cucumber mosaic virus
104 <400> SEQUENCE: 4
105 Met Asp Lys Ser Glu Ser Thr Ser Ala Gly Arg Asn Arg Arg
106   1           5           10
109 <210> SEQ ID NO: 5
110 <211> LENGTH: 13
111 <212> TYPE: DNA
112 <213> ORGANISM: Plasmid pSKUBC1
114 <220> FEATURE:
115 <221> NAME/KEY: misc_feature
116 <222> LOCATION: (...)
117 <223> OTHER INFORMATION: Joining region of fusion of two genes.
119 <400> SEQUENCE: 5
120 ggccatggac aaa                               13
123 <210> SEQ ID NO: 6
124 <211> LENGTH: 33
125 <212> TYPE: DNA
126 <213> ORGANISM: Plasmid pBI221
128 <220> FEATURE:
129 <221> NAME/KEY: misc_feature
130 <222> LOCATION: (1)..(33)
131 <223> OTHER INFORMATION: Joining region between 35S promoter and GUS gene.
133 <400> SEQUENCE: 6
134 tctagaggat ccccggtgg tcagtccctt atg          33
137 <210> SEQ ID NO: 7

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138 <211> LENGTH: 18  
139 <212> TYPE: DNA  
140 <213> ORGANISM: Plasmid pUG  
142 <220> FEATURE:  
143 <221> NAME/KEY: misc\_feature  
144 <222> LOCATION: (1)..(18)  
145 <223> OTHER INFORMATION: Joining region of fusion of genes.  
147 <400> SEQUENCE: 7  
148 ggccatggat cccgggt 18  
151 <210> SEQ ID NO: 8  
152 <211> LENGTH: 18  
153 <212> TYPE: DNA  
154 <213> ORGANISM: Plasmid pUCG2  
156 <220> FEATURE:  
157 <221> NAME/KEY: misc\_feature  
158 <222> LOCATION: (1)..(18)  
159 <223> OTHER INFORMATION: Joining region of fusion of genes.  
161 <400> SEQUENCE: 8  
162 ctccgcgtg gcatggac 18  
165 <210> SEQ ID NO: 9  
166 <211> LENGTH: 29  
167 <212> TYPE: DNA  
168 <213> ORGANISM: Plasmid pBIubi  
170 <220> FEATURE:  
171 <221> NAME/KEY: misc\_feature  
172 <222> LOCATION: (1)..(29)  
173 <223> OTHER INFORMATION: Joining region between promoter and fused gene.  
175 <400> SEQUENCE: 9  
176 tctagaacta gtggatccct ggcatgcag 29  
179 <210> SEQ ID NO: 10  
180 <211> LENGTH: 35  
181 <212> TYPE: DNA  
182 <213> ORGANISM: Plasmid pBIubi  
184 <220> FEATURE:  
185 <221> NAME/KEY: misc\_feature  
186 <222> LOCATION: (1)..(35)  
187 <223> OTHER INFORMATION: Final 2 codons of the ubiquitin gene followed by  
188 polylinker sequence.  
190 <400> SEQUENCE: 10  
191 ggaggccctgt cgactcgagc ccgggttaccg agctc 35  
194 <210> SEQ ID NO: 11  
195 <211> LENGTH: 12  
196 <212> TYPE: DNA  
197 <213> ORGANISM: Plasmid pUL  
199 <220> FEATURE:  
200 <221> NAME/KEY: misc\_feature  
201 <222> LOCATION: (1)..(12)  
202 <223> OTHER INFORMATION: Joining region between fusion of genes.  
204 <400> SEQUENCE: 11

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205 ggaggcatgg aa 12  
208 <210> SEQ ID NO: 12  
209 <211> LENGTH: 12  
210 <212> TYPE: DNA  
211 <213> ORGANISM: Plasmid pCL  
213 <220> FEATURE:  
214 <221> NAME/KEY: misc\_feature  
215 <222> LOCATION: (1)..(12)  
216 <223> OTHER INFORMATION: Joining region between fusion of genes.  
218 <400> SEQUENCE: 12  
219 cgtcgcatgg aa 12  
222 <210> SEQ ID NO: 13  
223 <211> LENGTH: 29  
224 <212> TYPE: DNA  
225 <213> ORGANISM: Plasmid pBIubi  
227 <220> FEATURE:  
228 <221> NAME/KEY: misc\_feature  
229 <222> LOCATION: (1)..(29)  
230 <223> OTHER INFORMATION: Joining region of fusion of promoter and gene.  
232 <400> SEQUENCE: 13 29  
233 tctagaacta gtggatccct ggcattcag  
236 <210> SEQ ID NO: 14  
237 <211> LENGTH: 35  
238 <212> TYPE: DNA  
239 <213> ORGANISM: Plasmid pBIubi  
241 <220> FEATURE:  
242 <221> NAME/KEY: misc\_feature  
243 <222> LOCATION: (1)..(35)  
244 <223> OTHER INFORMATION: Joining region with multicloning sequence between  
245 fusion of gene and terminator.  
247 <400> SEQUENCE: 14 35  
248 ggaggcctgt cgactcgagc ccgggtaccc agctc

**VERIFICATION SUMMARY**  
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L:14 M:271 C: Current Filing Date differs, Replaced Current Filing Date